

COMMISSIONERS APPROVAL

GRANDSTAFF 

ROKOSCH 

THOMPSON

CHILCOTT 

DRISCOLL 

PLETTENBERG (Clerk & Recorder)

Members Present.....Commissioner Carlotta Grandstaff,  
Commissioner Jim Rokosch, Commissioner Alan Thompson, Commissioner Greg  
Chilcott and Commissioner Kathleen Driscoll

Date.....November 25, 2008

Minutes.....Glenda Wiles

► The Board met for various administrative matters as follows:

- Approval of Roaring Lion Estates Final Plat and Subdivision Improvement Agreement: Planning Staff Jennifer DeGroot and Planner Tristan Riddell stated the Planning Staff was not sure the pro rata payment adequately meets the required amount for payment of the vegetation reduction due to the high wild land fire area. The County Attorney had advised them that the applicant must provide for this vegetation reduction separate from the pro-rata. Therefore, the developer developed a Subdivision Improvement Agreement with a letter of credit in order to complete the vegetation reduction along the roadway. Discussion included the subdivision requirements for design standards and the possibility of a proportional adjustment on the pro rata share so the developer does not pay for this twice. Discussion also included a late comer's agreement if the vegetation is not cleared. Jennifer stated until this matter is cleared up, in regard to this being a separate issue from the pro rata amount, they felt it was wise to treat this separate at this time with a Subdivision Improvement Agreement. Tristan stated vegetation reduction along that roadway leading to that particular subdivision is significant. The regulations state that qualified engineers submit a cost estimate for this work, which was done by Engineer John Horat at a cost of \$2,000. Tristan stated Planning Staff is not qualified to say this amount is enough to cover this vegetation reduction or not. The Developer is giving a letter of credit and \$2,500.00. If the work is not completed, then the county will need to handle this vegetation by hiring someone else to do it. The question is: Will it cost less than the \$2,500 or more than that amount? Tristan stated Road Supervisor Dave

Ohnstad is concerned about this vegetation reduction due to the conflicts of the vegetation along the right of way and the homeowners. Final plat deadline is November 30, 2008; as the developer is already in an extension period of one year. **Commissioner Thompson made a motion to grant final approval with the Subdivision Improvement Agreement. Commissioner Chilcott seconded the motion.** Discussion of the motion was if the \$2,500 will be enough to handle the vegetation reduction, and if it is not, the County could have an issue with the Civil Engineer. Another issue is the work that needs to be done in the county right of way by a private party. Glenda noted in the past the County has required the person doing any work in the right-of-way, or on a County road, to be a qualified contractor with insurance naming the county as additionally insured. The other matter for discussion was the ownership of this right of way – does it belong to the County or the Forest Service? Commissioner Rokosch suggested they contact Road Supervisor David Ohnstad and Engineer John Horat prior to making the final decision. After further discussion, **Commissioner Thompson, Commissioner Chilcott and Commissioner Driscoll voted “aye”.** **Commissioner Rokosch and Grandstaff voted “nay”.** Commissioner Driscoll stated she wants the language inserted to make sure the person who does the work is a contractor and has the proper insurance naming the county as additionally insured. Tristan stated the Contractor is Wayne Anderson. After discussion of Wayne’s previous developments and quality of work, the majority of the Commissioners felt comfortable with this work being completed with no further issues.

- **Aplin Minor Subdivision Final Plat:** **Commissioner Rokosch made a motion to grant final approval based on Planning Staff’s recommendation. Commissioner Thompson seconded the motion and all voted “aye”.** Commissioner Chilcott was not present for this vote.
- **Preliminary Plat Extension for Moiese Meadows:** Planner Tristan Riddell stated this subdivision was reviewed under the old Subdivision Regulations. The Developer has submitted a request for extension and Tristan noted the Developer has been working in good faith. **Commissioner Thompson made a motion to grant this extension. Commissioner Driscoll seconded the motion. Commissioners Grandstaff, Driscoll and Thompson voted “aye”.** Commissioner Rokosch abstained and Commissioner Chilcott was not present for this vote.
- **Employee Action Forms:** Human Resource Director Robert Jenni requested several action forms for signature.
- **Resolution No. 2365:** Citizen Phil Zacha donated a GMC utility pick up to the Road Department. **Commissioner Chilcott made a motion to approve this Resolution. Commissioner Thompson seconded the motion and all voted “aye”.**
- **Replacement of Bobbie Roos as the Ex-Officio Member to the Right to Right to Farm and Ranch Board, Open Lands Board and Weed Board:** Retired Extension Agent Rob Johnson has resigned from these boards due to his retirement. Newly appointed Extension Agent Bobbie Roos has agreed to sit as the Ex-Officio Member to these boards. **Commissioner Rokosch made a motion to appoint**

**Bobbie Roos to these boards as Ex-Officio Member. Commissioner Chilcott seconded the motion and all voted "aye".**

► The Board met with local pharmacists regarding discount prescription card programs.

► Commissioner Chilcott left to attend a BREDD meeting in Missoula.

► The Board continued the public hearing from November 19<sup>th</sup>, for the adoption of Resolution to Issue Revenue Bonds for Western Montana Mental Health. Present at this hearing was County Attorney George Corn, Internal Auditor Klarryse Murphy, Debra Parker Corporate Council for Western Mt Mental Health Center, Teresa Nichols, Chief Financial Officer at Western Mt. Mental Health Center. George stated after visiting with Mae Nan Ellingson who is the Bond Counsel that the Resolution needs further work due to the needed interest rate. Mae Nan would like the Board to continue this hearing until tomorrow at 3:30 which will give her time to work out this information with Attorney Ben Johnson of Kennedy & Graven of Minneapolis, MN.

Teresa stated this is a complicated interest rate swap so Western Mt. Mental Health would obtain a 10-year financing plan. Currently they are on a variable rate and the rate is increasing. If the resolution is not passed this week they may have to push the closing of the bond purchase out. They would like to close December 4<sup>th</sup> as they can lock in at the 5%. Debra and Teresa will be in another meeting tomorrow so they cannot attend tomorrow's meeting if the Commissioners choose to carry the hearing to tomorrow. Debra noted Kalispell was satisfied with these documents. She noted Mae Nan was reviewing the Chief Financial position requirements and the responsibilities the Resolution would place on the County of Ravalli. George stated he wants to make sure this Resolution is correct when completed.

Debra stated if the Resolution is not passed tomorrow she would like to see the hearing continued to the next meeting of the Commissioners since they have this December 4<sup>th</sup> date. She stated the Resolution could also be approved with the agreement to be approved after Mae Nan's approval. George stated Mae Nan is working on the Resolution at this time, not the agreement as it is quite lengthy. Commissioner Rokosch suggested the agreement be referenced and attached to the Resolution.

Klarryse stated she visited with Auditor Ron Foltz who had some concerns about receipting a bond payable, but those areas have been addressed and he feels comfortable with the last Resolution as presented.

Commissioner Rokosch stated he still has the concern of who the Financial Officer is. George stated Mae Nan is working on that issue now.

Present at this meeting was Treasurer JoAnne Johnson. Commissioner Rokosch asked JoAnne if she has any concerns about the possibility of being the Financial Officer. JoAnne stated she would have to know what is involved before she can respond to that question. George stated the first Resolution had the County involved in a whole host of

responsibilities; and that is what Mae Nan is attempting to correct. Debra stated they do not want the county to be responsible for any accounting as they understand that is their responsibility.

**Commissioner Rokosch made a motion to continue this hearing to November 26<sup>th</sup> at 3:30 p.m. Commissioner Thompson seconded the motion and all voted "aye".**

► Commissioner Driscoll left to attend a Community Management Team and Bitterroot Workforce System meeting at Trapper Creek Job Corp in Darby.

► The Board met with Road Supervisor David Ohnstad for an update. Commissioners Driscoll and Chilcott were not present for this meeting due to other meetings as noted above. Discussion included the following issues:

- David presented two citizens accident and claim forms. One is the complaint for a rock chip and the second is for paint splattering on a vehicle. Both complainants claim the county is at fault. Both claims are below the deductible and it will be up to the Commissioners to decide if these claims should be paid. Commissioner Grandstaff stated she will review these requests.
- The design and maintenance for highway landscaping can cause problems in obtaining volunteer workers. David will be meeting with Department of Transportation (MDOT) Officials on December 10<sup>th</sup> and will express the Commissioners concern over the upcoming Victor design.
- David stated the Rotary Club has adopted the Blodgett Park north of the Silver Bridge for maintenance etc. They would like to incorporate the area between the Silver Bridge and the new Veterans Memorial Bridge into their long-range plan. If the MDOT property is available the Rotary may pursue this.
- David also noted for future highway projects rather than burn the wood debris it would be wise to recycle the wood debris by way of a tub grinder to then be utilized for bio-fuel. Commissioner Thompson noted both Victor and Darby Schools utilize this wood debris for their heating system.
- David also noted he has received phone calls about the barricades that have been placed between Meridian Road and US 93 south of Victor. He noted this was closed because a fair number of people were accessing the county's topsoil pile. David hopes to have the new access built which will avoid the use of the barricades.
- David also addressed the proposed Safety Improvement project on State Route No. 269 @ Black Lane and Bass Lane. This flattening of the vertical curve has been designed and will provide for greater sight distance to the north of that intersection. He asked the Board to allow the realignment of Black and Bass Lane into this project. The issue will be how to pay for this. He hopes to partner with DOT, and possibly use secondary funding. Commissioner Rokosch indicated he would not like to cause any issues in regard to the secondary funding. Commissioner Thompson discussed the manner in which the secondary road funding is approved. David will look into this further.
- David also discussed the 50 miles-per-hour speed limit on SR269 between Big Corral Road and Fairgrounds Road east of Hamilton. He stated this speed is far

too high because the intersections have poor sight distance. The Commissioners concurred and it was agreed that David will write a letter to the State asking for a speed study and potential speed reduction.

- David also noted West Side Road, west and south of Hamilton is still identified as a State Secondary Route. There are some significant issues on West Side Road for drainage and pavement. Therefore he will look to funding sources from the State, particularly in regard to bridge construction over the Roaring Lion Creek crossing.
- David addressed the cost of the Kootenai Bridge thus far, which shows a balance of \$274,000 for reimbursement from the Department of Emergency Services in Fort Harrison (this is taking into account the residual in the emergency levy fund, the two mills, certain items they did not anticipate such as detour routes). The County costs will be the residual, the two mill (one time levy) and the personnel costs will be used as a match. All the other costs are reimbursable.
- Winter Roadway Operations: David stated they made some minor changes which are highlighted in the 2008-2009 policy as brought forth for discussion. After review, **Commissioner Thompson made a motion to adopt the Winter Roadway Operations for 2008-2009 as brought forward with changes. Commissioner Rokosch seconded the motion and all voted "aye".** See Resolution No. 2366.
- Speed limit on Luby Lane: David stated speed limits are 'at second place for what people do not understand'. He presented information on Federal and Montana speed limit guidelines and the 85<sup>th</sup> percentile noting that most drivers will drive at a reasonable and safe speed. David stated if they use the standard criteria in order to establish speed limits it is not arbitrary and is justifiable. As they prepare the traffic analysis, some citizens will feel the speed is not slow enough. David stated he visited with Civil Counsel who felt the County could establish a speed limit on both paved and gravel roads by way of an ordinance. He stated they can discuss the issue of speed limits for gravel roads another day. He felt an ordinance stating a maximum speed of 50 miles per hour on all county roads could be adopted. In regards to the specific issue of Luby Lane, a traffic study was done (see attachment) showing the maximum speed at 69.3 mph, a minimum speed of 9.1 mph with the average speed of 30.1 mph. The 85<sup>th</sup> percentile would place this at 35 mph which is what the speed limit is set at now. The request from resident Cynthia Schmidt along the road was 25 mph. David noted a resolution has the weight of an ordinance if adopted by Commissioners, but the statute says speed limits must be adopted by ordinances. Since the calendar for today's meeting did not address a Resolution for Speed Limit on Luby Lane, the Commissioners want to review the issue of an Ordinance for speed limits rather than another individual Resolution for a specific road.
- Surplus Property for Corvallis and Victor Highway Department Property: It was noted David put together the value of the Victor shed to be at \$187,445.00. Commissioner Rokosch will contact Dave Meadows (Volunteer Fire Department) and discuss this issue with him. In regard to the Corvallis land, a resident named Dan Brandborg has inquired into purchasing this property. David stated he will need to order an updated appraisal which will cost money. If the county decides

to move forward with an auction, Mr. Brandborg will need to follow the auction process like any other citizen. If David orders an appraisal he can see what the appraiser will charge him to look at the Victor shed and land.

- Operating budget/work zone assistants: David stated he would like to keep the two work zone assistants on until they determine if they are receiving the Secure Rural Schools (SRS) money in January. Commissioner Grandstaff stated she has no problems in continuing to fund those two positions and then re-assess when the SRS monies come in January. Commissioner Rokosch discussed relying on soft monies that might not be there in another year. Commissioner Rokosch then left for a meeting in Missoula which left the meeting without a quorum. Commissioner Thompson stated he was ok with keeping these two positions on for now and Commissioner Grandstaff concurred.
- Invoices for Services: David presented the invoice for the chip sealing at the Fairgrounds and the dust abatement at River Road. Glenda will prepare a claim for the dust abatement and send the other claim to the Fairgrounds for payment.
- David also advised the Commissioners to take a look at the Cottonwood trees on Tammany Lane because some day they will need to come down because they were all planted 100 years ago. Many are dead or are dying and the vast majority need to be taken down. Many of the large limbs are over the road and with a good wind storm could cause a major problem. David stated the County's lift truck reaches 35'. They could rent equipment that would allow the road employees to get high enough to cut the limbs.

# TimeMark Incorporated

Description : LUBY LANE  
Description : WEST END  
Description :

Site: 2001  
Tuesday, 10/28/2008, 11:41:38 AM -  
Monday, 11/3/2008, 2:26:08 PM

## Volume Grand Totals

### Average Hourly Volumes

|          | Near lane f | Far lane flo | Combined |
|----------|-------------|--------------|----------|
| 12:00 AM | 0.0         | 0.0          | 0.0      |
| 1:00 AM  | 0.0         | 0.0          | 0.0      |
| 2:00 AM  | 0.2         | 0.0          | 0.2      |
| 3:00 AM  | 0.8         | 1.8          | 2.7      |
| 4:00 AM  | 0.7         | 2.3          | 3.0      |
| 5:00 AM  | 1.2         | 6.8          | 8.0      |
| 6:00 AM  | 4.0         | 9.8          | 13.8     |
| 7:00 AM  | 3.2         | 9.2          | 12.3     |
| 8:00 AM  | 4.0         | 7.0          | 11.0     |
| 9:00 AM  | 5.5         | 7.8          | 13.3     |
| 10:00 AM | 6.2         | 7.5          | 13.7     |
| 11:00 AM | 7.4         | 6.3          | 13.7     |
| 12:00 PM | 6.9         | 6.4          | 13.3     |
| 1:00 PM  | 9.7         | 6.3          | 16.0     |
| 2:00 PM  | 10.6        | 8.9          | 19.5     |
| 3:00 PM  | 12.0        | 7.0          | 19.0     |
| 4:00 PM  | 11.0        | 5.7          | 16.7     |
| 5:00 PM  | 6.7         | 4.0          | 10.7     |
| 6:00 PM  | 4.7         | 3.7          | 8.3      |
| 7:00 PM  | 3.3         | 0.8          | 4.2      |
| 8:00 PM  | 2.2         | 1.2          | 3.3      |
| 9:00 PM  | 0.8         | 0.3          | 1.2      |
| 10:00 PM | 1.5         | 0.3          | 1.8      |
| 11:00 PM | 1.3         | 0.5          | 1.8      |
| ADT      | 103.7       | 103.8        | 207.5    |

### Study Grand Totals

| Near lane f | Far lane flo | Combined |
|-------------|--------------|----------|
| 648         | 643          | 1291     |
| 50.2 %      | 49.8 %       |          |

# TimeMark Incorporated

Description 1 : LUBY LANE  
Description 2 : WEST END  
Description 3 :

Site: 2001  
Tuesday, 10/28/2008, 11:41:38 AM -  
Monday, 11/3/2008, 2:26:08 PM

## Speed Grand Totals Combined

|          | Total | Hourly Averages |              |              |              |              |              |              |              |              |              |              |              |               |
|----------|-------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
|          |       | 0 -<br>< 15     | 15 -<br>< 20 | 20 -<br>< 25 | 25 -<br>< 30 | 30 -<br>< 35 | 35 -<br>< 40 | 40 -<br>< 45 | 45 -<br>< 50 | 50 -<br>< 55 | 55 -<br>< 60 | 60 -<br>< 65 | 65 -<br>< 70 | 70 -<br>< 200 |
| 12:00 AM | 0.0   | 0.0             | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 1:00 AM  | 0.0   | 0.0             | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 2:00 AM  | 0.2   | 0.0             | 0.0          | 0.0          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 3:00 AM  | 2.7   | 0.0             | 0.2          | 0.3          | 0.5          | 0.7          | 0.8          | 0.0          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 4:00 AM  | 3.0   | 0.0             | 0.0          | 0.2          | 1.3          | 1.0          | 0.5          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 5:00 AM  | 8.0   | 0.3             | 0.2          | 0.2          | 2.7          | 2.8          | 0.8          | 0.3          | 0.3          | 0.2          | 0.0          | 0.2          | 0.0          | 0.0           |
| 6:00 AM  | 13.8  | 0.2             | 0.5          | 1.3          | 4.8          | 4.7          | 1.0          | 0.7          | 0.7          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 7:00 AM  | 12.3  | 0.2             | 0.7          | 2.2          | 1.5          | 2.8          | 3.2          | 1.7          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 8:00 AM  | 11.0  | 0.5             | 0.2          | 1.7          | 2.3          | 3.8          | 1.7          | 0.5          | 0.2          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0           |
| 9:00 AM  | 13.3  | 0.2             | 0.5          | 2.0          | 4.5          | 3.7          | 1.8          | 0.7          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 10:00 AM | 13.7  | 0.0             | 0.8          | 1.5          | 5.5          | 2.7          | 2.0          | 1.0          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 11:00 AM | 12.7  | 0.1             | 0.6          | 2.4          | 4.0          | 3.0          | 1.7          | 0.4          | 0.0          | 0.1          | 0.0          | 0.1          | 0.1          | 0.0           |
| 12:00 PM | 13.3  | 0.1             | 0.6          | 1.1          | 3.3          | 4.3          | 2.9          | 0.9          | 0.0          | 0.1          | 0.0          | 0.0          | 0.0          | 0.0           |
| 1:00 PM  | 16.0  | 0.3             | 0.9          | 1.7          | 5.6          | 4.3          | 2.4          | 0.7          | 0.1          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 2:00 PM  | 18.1  | 0.1             | 1.0          | 2.3          | 5.1          | 5.9          | 3.6          | 0.1          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 3:00 PM  | 19.0  | 0.0             | 0.8          | 2.3          | 6.5          | 5.8          | 2.5          | 0.7          | 0.3          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 4:00 PM  | 16.7  | 0.2             | 0.8          | 3.3          | 5.3          | 5.0          | 1.2          | 0.8          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 5:00 PM  | 10.7  | 0.3             | 0.5          | 1.0          | 2.8          | 4.2          | 1.2          | 0.3          | 0.3          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 6:00 PM  | 8.3   | 0.2             | 0.5          | 0.7          | 3.3          | 1.8          | 1.0          | 0.7          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 7:00 PM  | 4.2   | 0.0             | 0.3          | 0.8          | 1.8          | 1.0          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 8:00 PM  | 3.3   | 0.3             | 0.2          | 0.5          | 0.8          | 1.3          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 9:00 PM  | 1.2   | 0.0             | 0.0          | 0.0          | 0.2          | 0.7          | 0.2          | 0.0          | 0.0          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0           |
| 10:00 PM | 1.8   | 0.0             | 0.0          | 0.2          | 1.2          | 0.3          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0          | 0.0           |
| 11:00 PM | 1.8   | 0.0             | 0.0          | 0.2          | 0.3          | 0.7          | 0.3          | 0.2          | 0.0          | 0.2          | 0.0          | 0.0          | 0.0          | 0.0           |
| ADT      | 205.1 | 3.0             | 9.2          | 25.9         | 63.7         | 60.4         | 29.2         | 9.6          | 2.6          | 1.0          | 0.0          | 0.3          | 0.1          | 0.0           |

**Percentile Speeds**  
(mph)      10.0%   15.0%   50.0%   85.0%   90.0%  
                 22.1      24.0      30.1      36.3      38.2

**10 mph Pace Speed**                      24.4 - 34.4  
Number in pace                      791 (61.3 %)                      **Average**                      30.1 mph  
   **Minimum**                      9.1 mph  
   **Maximum**                      69.3 mph

**Speeds Exceeded**                      45.0 mph   55.0 mph   65.0 mph  
   1.9 %                      0.2 %                      0.1 %  
Count    25    3    1

|                | Total | Study Grand Totals |              |              |              |              |              |              |              |              |              |              |              |               |
|----------------|-------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
|                |       | 0 -<br>< 15        | 15 -<br>< 20 | 20 -<br>< 25 | 25 -<br>< 30 | 30 -<br>< 35 | 35 -<br>< 40 | 40 -<br>< 45 | 45 -<br>< 50 | 50 -<br>< 55 | 55 -<br>< 60 | 60 -<br>< 65 | 65 -<br>< 70 | 70 -<br>< 200 |
| Near lane flow | 648   | 6                  | 37           | 116          | 258          | 165          | 50           | 13           | 1            | 0            | 0            | 1            | 1            | 0             |
|                |       | 0.9%               | 5.7%         | 17.9%        | 39.8%        | 25.5%        | 7.7%         | 2.0%         | 0.2%         | 0.0%         | 0.0%         | 0.2%         | 0.2%         | 0.0%          |
| Far lane flow  | 643   | 13                 | 21           | 47           | 142          | 215          | 136          | 47           | 15           | 6            | 0            | 1            | 0            | 0             |
|                |       | 2.0%               | 3.3%         | 7.3%         | 22.1%        | 33.4%        | 21.2%        | 7.3%         | 2.3%         | 0.9%         | 0.0%         | 0.2%         | 0.0%         | 0.0%          |
| Combined       | 1291  | 19                 | 58           | 163          | 400          | 380          | 186          | 60           | 16           | 6            | 0            | 2            | 1            | 0             |
|                |       | 1.5%               | 4.5%         | 12.6%        | 31.0%        | 29.4%        | 14.4%        | 4.6%         | 1.2%         | 0.5%         | 0.0%         | 0.2%         | 0.1%         | 0.0%          |



# LEGISLATIVE AUDIT DIVISION

Scott A. Seacat, Legislative Auditor  
John W. Northey, Legal Counsel  
Tori Hunthausen, IT & Operations Manager



Deputy Legislative Auditors:  
Jim Pellegrini, Performance Audit  
James Gillett, Financial-Compliance Audit

September 15, 1997

Representative John A. Mercer  
Speaker  
PO Box 460  
Polson MT 59860-0460

Dear Speaker Mercer:

At your request, we reviewed the trends and changes in traffic safety activity since the removal of a numerical speed limit in December 1995. Subsequent to your request 12 legislators called to provide comments and request supplemental and related information. The attached report identifies major questions raised and provides data analysis addressing those questions.

We thank the staffs at the Departments of Justice and Transportation for their assistance and cooperation during our review. I would also like to express special thanks to Tom Mulvaney of the Legislative Services Division for his hard work and long hours supporting our data analysis.

As you have requested, we have mailed photocopies of this report to all Montana state legislators.

Respectfully submitted,

(signature on file)

Scott A. Seacat  
Legislative Auditor

AG/v/z9.ltr

Enclosure

# **Legislative Audit Division**

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**Legislative Request 98L-11**

**September 15, 1997**

## **Montana Speed Limit Analysis**

We attempted to answer questions that may help the Legislature and the public make decisions related to speed limits in Montana. Information includes:

- ▶ Average measured speeds on urban Interstate highways remained constant between 55-60 mph.
- ▶ Average measured speeds on rural Interstate highways have been increasing and are currently 67 mph.
- ▶ Rural non-Interstate highways average measured speeds increased from 54 mph to 58 mph.
- ▶ Annual vehicle miles traveled increased steadily. Number of accidents and fatalities per million vehicle miles decreased.
- ▶ The first seven months of 1997 had increases in both the number of fatal accidents and fatalities compared to 1996.
- ▶ Majority of fatal accidents and total accidents are occurring on non-Interstate highways.
- ▶ Most accidents occur during daylight hours.
- ▶ Numerous factors contribute to fatal accidents.
- ▶ Seat belts increase safety.
- ▶ Basic rule citations increased in 1997.

**Direct comments/inquiries to:**

**Legislative Audit Division**

**Room 135, State Capitol**

**PO Box 201705**

**Helena MT 59620-1705**

## **INTRODUCTION**

The Legislative Audit Division (LAD) was asked to analyze trends and changes which have occurred in motor vehicles speeds and accident rates since the removal of the numerical speed limit for the state of Montana on December 8, 1995. In addition to the LAD study, several studies are currently underway relating to speed limits. The National Highway Traffic Safety Administration (NHTSA) is studying the effects of increased speed limits which will focus on death and injury costs due to speed-related crashes and the benefits to states from repeal of national speed limits. The study is due to Congress by September 30, 1997. The NHTSA would not release any results of the study at the time of this analysis.

On September 5, 1997, the director of the Montana Department of Transportation (MDT), reconvened the department's Ad Hoc Committee on Speeds to determine if a compelling argument can be made for establishing a specific, numeric speed limit for Montana. The Committee is directed to provide an analysis and make a specific recommendation based on available data and information. The project was given a top priority and results will be presented no later than October 10, 1997.

## **SCOPE OF LAD REVIEW**

For this study, we have gathered data and information from as many sources as possible. These sources are organizations and government agencies involved with traffic safety. They include the Montana Department of Justice, MDT, the NHTSA, traffic safety agencies in other states, and a national automobile publication. This document includes data on Montana accidents and summary information from research papers, reports and independent analysis. The following sections outline questions asked by legislators and the available analytical data we compiled in response to these questions.

## **WHAT ARE SOURCES FOR HIGHWAY TRAFFIC SAFETY INFORMATION?**

There are numerous systems in place which contain data related to highway traffic safety. One such system is the Fatality Analysis Reporting System (FARS). This is a national database which contains data on fatal traffic crashes. Due to the limited Montana accident information on this system, we did not use data from FARS. For our analysis, we used data from the Montana Accident Reporting System (MARS). This system, along with a new Accident Investigator's report, was implemented by the Montana Highway Patrol (MHP), Department of Justice, in January 1996. Highway traffic safety data from the MDT was also used.

## **Data Limitations**

The new MARS system stores information from crash reports throughout the state. Due to the recent changes in the system, less than two years of comparable detailed data were available, 1996 and year to date for 1997. In addition, estimated speed at the time of accident is not recorded on the current database, therefore, we were not able to determine if a statistical correlation exists between speed and accident frequency. We did not examine the internal controls over the computer systems. Historic data

on MARS is updated on an on-going basis, therefore, figures in this report may be updated and changed. Data used in this report was based on data entered on the system as of Thursday, September 11, 1997.

### **AVAILABLE SPEED LIMIT GUIDELINES**

Every state has a basic speed law which specifies that regardless of any other applicable speed limit, the driver shall operate at a speed reasonable and prudent for the existing conditions, taking into account actual and potential hazards encountered. The process for setting speed limits recognizes most drivers will drive at a reasonable and safe speed. Traffic engineers often think of traffic speeds in terms of pace. When most vehicles are traveling at about the same pace, the chance of collisions is greatly reduced. Traffic engineers can determine the pace by collecting information on vehicle speed along a section of highway. Most states use widely accepted practices supported by the Federal Highway Administration (FHWA) and the Institute of Traffic Engineers to develop their basic traffic safety guidelines. It should be noted traffic engineers are studying traffic speeds and road conditions on sections of highways to set special speed zones not overall statewide speed limits.

### **FHWA Guidelines**

FHWA issued a report titled "Guidelines for Establishing Speed Zones" in July 1985. This report outlines some fundamental concepts used as guidelines in establishing realistic speed zones. The guidelines include:

- The majority of motorists drive at a speed they consider reasonable and safe.
- A speed limit should be set so the majority of motorists observe it voluntarily.
- A speed limit should seem too fast to at least 85 percent of the drivers.
- The likelihood of an accident occurring is significantly greater for motorists traveling at speeds both slower and faster than the mean speed of traffic.
- The lowest accident involvement rate occurs when vehicles are traveling at approximately the 85th-percentile speed. (The 85th percentile speed is the speed where 85 percent of the drivers are at this speed or slower.)

This same FHWA report gives the major reasons for using the 85th-percentile speed to establish maximum speed limits (paraphrased):

- There is widespread use and acceptance by traffic professionals.
- The probability of accidents is low for vehicles traveling below the 85th-percentile speed.
- The 85th-percentile speed is recognized by the majority of drivers as a safe speed and is largely self-enforcing.
- Speed samples are easy to obtain and analyze.

Using the 85th-percentile speed to establish speed zones assumes there is a normal bell shaped curve for the speed distribution. The pace is defined as the 10 mph speed range containing the largest percentage of vehicles. In an ideal normal speed distribution about 70 percent of the vehicles would be

traveling within the pace with about 15 percent traveling slower and 15 percent traveling faster than the pace. Thus the upper end of the pace would be at about the 85th- percentile speed.

### **Montana Speed Zone Guidelines**

MDT has outlined state guidelines in a 1977 report "Realistic Speed Zoning in Montana." This report states: "... traffic laws which are based on the behavior of reasonable motorists are found to be successful. Laws that arbitrarily restrict the majority of drivers encourage wholesale violations, lack public support and usually fail to bring about desirable changes in driving behavior. This is especially true of speed zoning."

This same report goes on to state: "Before and after studies consistently demonstrate that there are no significant changes in traffic speeds following the posting of new or revised speed limits. Furthermore, no published research findings have established any direct relationship between posted speed limits and accident frequency . . ."

The report gives some reasons for realistic speed zones:

- They invite public compliance by conforming to the behavior of the majority and by giving a clear reminder to non-conforming violators.
- They offer an effective enforcement tool to the police by clearly separating the occasional violator from the reasonable majority.
- They tend to minimize current public antagonism toward police enforcement.
- They inject an element of logic and reason into an otherwise arbitrary and often emotional issue.

According to the department's highway design manual, the 85th-percentile speed is one of the factors, and usually the most important factor, for determining the posted, legal speed limit of a highway section. Other factors which can be considered for a posted speed limit include:

- 10 mph pace information
- road surface characteristics, shoulder condition, grade, alignment, and sight distance;
- the type and density of roadside development;
- accident experience during the previous 36 months, and;
- parking practices and pedestrian activity.

Since motorists take most of these factors into account when determining their speed, the best measurement for speed zone setting is the speed most drivers are driving.

### **Design Speed for Montana Highways**

Design speed is "the maximum safe speed that can be maintained over a specified section of highway when conditions are so favorable that the design features of the highway govern." A design speed is selected for each highway project and according to MDT's road design manual it relates to the driver's comfort and not the speed at which a vehicle will lose control. Design speed is based on several road

design elements including highway classification, urban and rural roads, traffic volumes, and terrain. According to MDT, all these elements are considered when a road is designed. However, terrain has the greatest impact on a highway's design speed. The department's design standards classify terrain as either level, rolling, or mountainous. The following provides a breakout of the design speed for Montana's highways when the different types of terrain are considered.

#### **DESIGN SPEED FOR MONTANA HIGHWAYS**

***National Highway System*** (interstate and principal arterials)

| <u>Terrain Type</u> | <u>Design Speed</u> |
|---------------------|---------------------|
| Level               | 110 Km/h (70 mph)   |
| Rolling             | 100 Km/h (62 mph)   |
| Mountainous         | 80 Km/h (50 mph)    |

***Surface Transportation Program*** (remainder of primary, secondary, urban and state highways)

| <u>Terrain Type</u> | <u>Design Speed</u> |
|---------------------|---------------------|
| Level               | 100 Km/h (62 mph)   |
| Rolling             | 90 Km/h (56 mph)    |
| Mountainous         | 70 Km/h (43 mph)    |

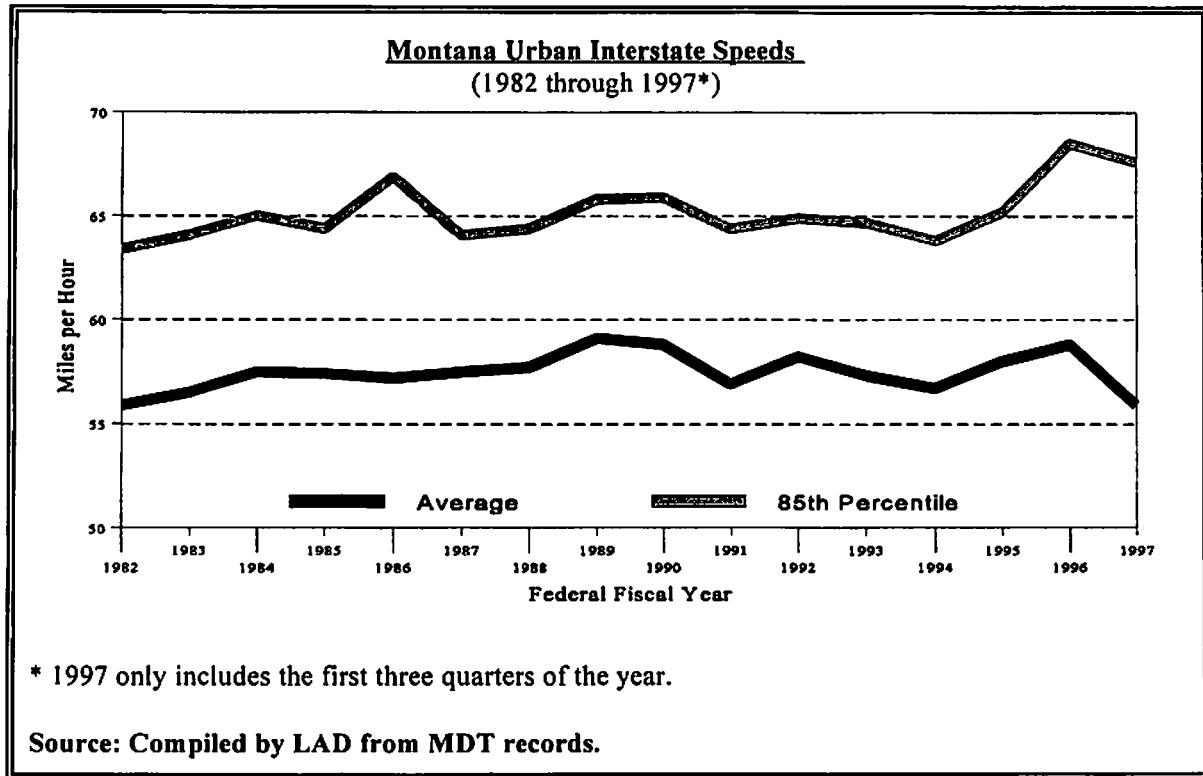
**Source: Compiled by LAD from MDT records.**

In addition, MDT officials indicated urban roads are designed with a speed of 80 Km/h (50 mph) because there is more development and access to the highway in these areas.

#### **ARE MOTORISTS DRIVING FASTER IN MONTANA?**

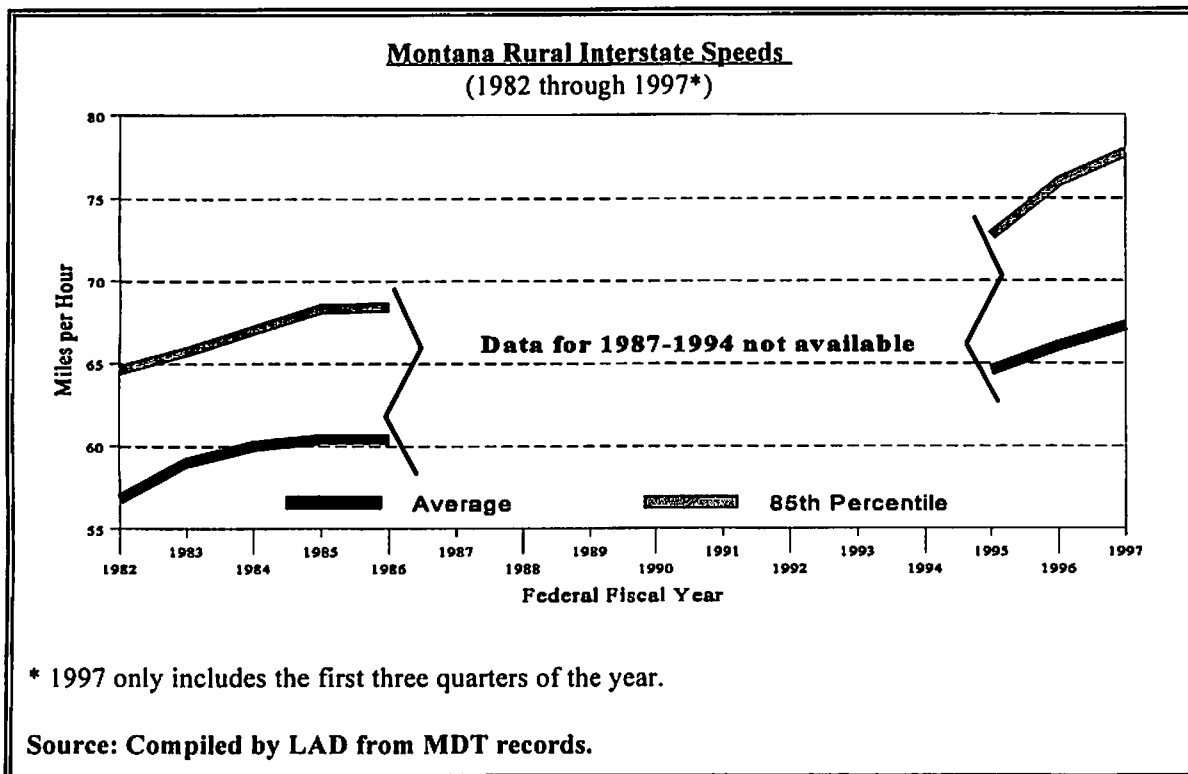
MDT's Data and Statistics Bureau collects data on traffic speeds which are reported quarterly to the federal government. This data is collected in 24 hour periods, four times a year, at 39 sites throughout Montana.

For urban Interstate highways (a total of eleven miles of Interstate near populations of 50,000 or greater) the posted speed limit has been constant since 1974 when the nationwide maximum speed limit of 55 mph was enacted as a temporary fuel conservation measure until it was repealed in December 1995. As shown in the following chart average measured speeds on urban Interstate highways have remained between 55 and 60 mph for the past 15 years.



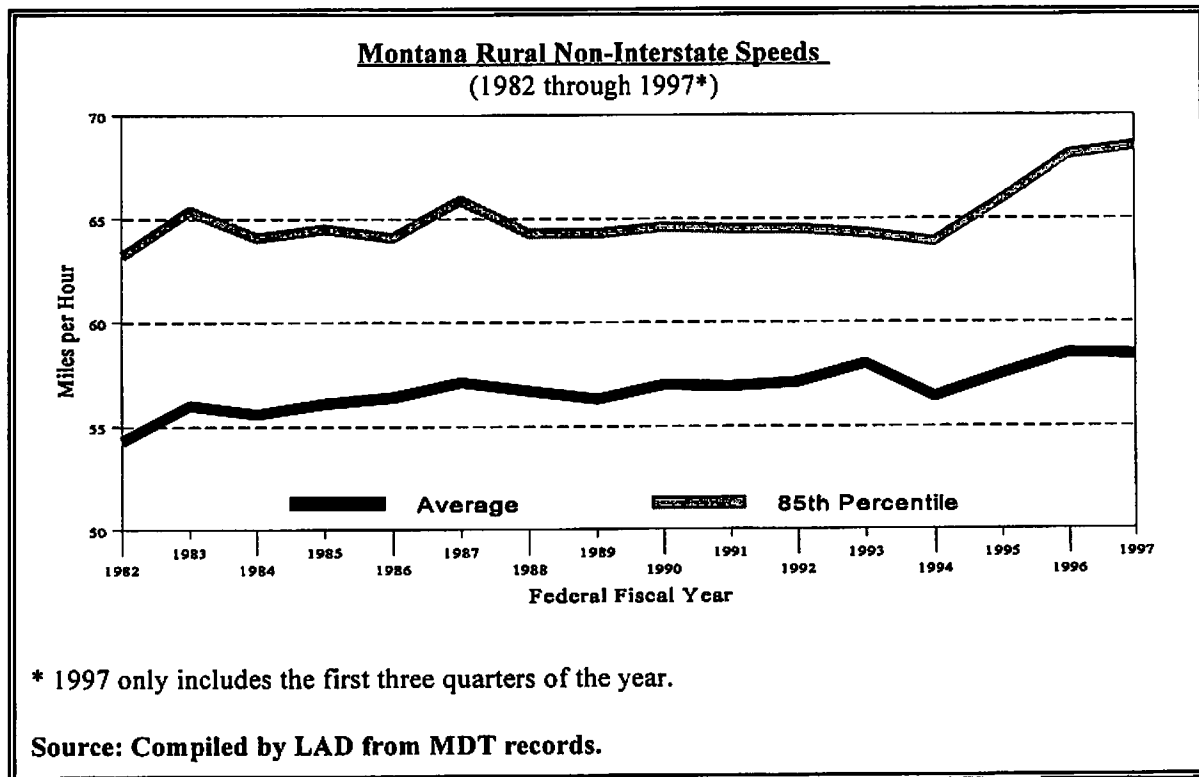
The average measured speed was 55.9 mph in FFY82 (federal fiscal year-October 1 through September 30) and increased to about 59 mph in FFY89 and FFY90. The average measured speed then dropped slightly before returning to 58.8 mph in FFY96. Through the first three quarters of FFY97 the average measured speed was 55.9 mph.

For rural Interstate highways (which are the majority of Interstate miles in Montana), the posted speed limit increased from 55 mph to 65 mph in April 1987. The MDT stopped data collection on the system at that time and did not start collecting speed data again until FFY95. From FFY82 until FFY86, the average measured speed on rural Interstate gradually increased from about 57 mph to about 60 mph. When data collection started again in FFY95 the average measured speed was 64.5 mph. In December 1995, Montana returned to the "basic rule" speed limit. The average speed on rural Interstate highways increased to 66 mph in FFY96 and is at 67.2 mph through the first three quarters of FFY97.





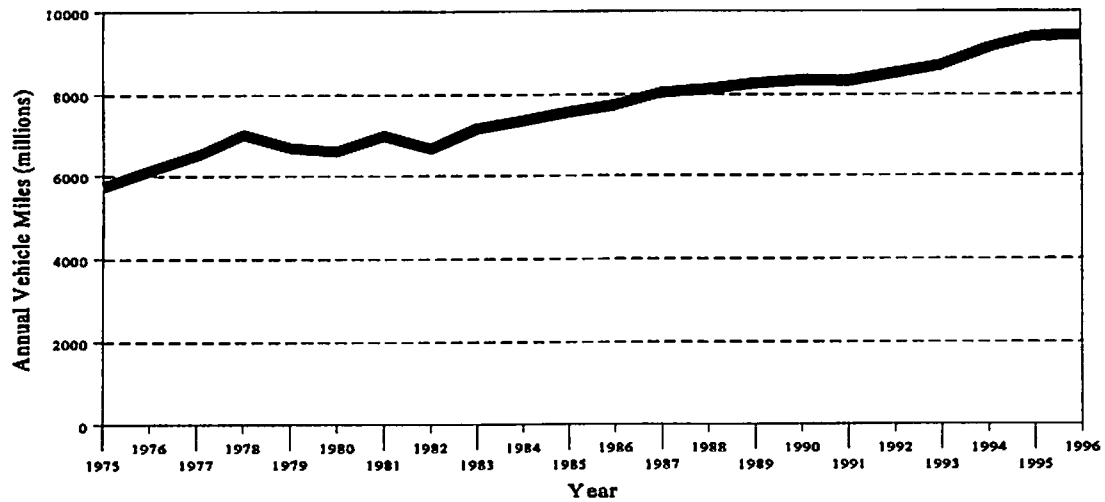
For rural Non-Interstate highways the posted speed limits have followed the same pattern as for the urban Interstate highways. The posted speed limits were 55 mph until December 1995 when the “basic rule” became effective again. As shown in the following chart, there appeared to be a slight increasing trend in measured speed prior to any change in the posted speed limit. Since the return to the “basic rule”, the average measured speed has continued its gradual climb to around 58.5 mph.



### **ARE MONTANA TRAFFIC VOLUMES INCREASING?**

MDT's Data and Statistics Bureau also collects data on traffic volumes. One of the measures of the amount of traffic on the state's highways is the annual vehicle miles of travel. When one vehicle travels one mile it equals one vehicle mile. The following chart shows that annual number of vehicle miles traveled in the state has been increasing steadily since 1975. In 1975 there were approximately 5.7 billion vehicle miles traveled on the state's Interstate, state highway systems and local roads. The vehicle miles increased to about 9.4 billion in 1996 or an increase of about 65 percent.

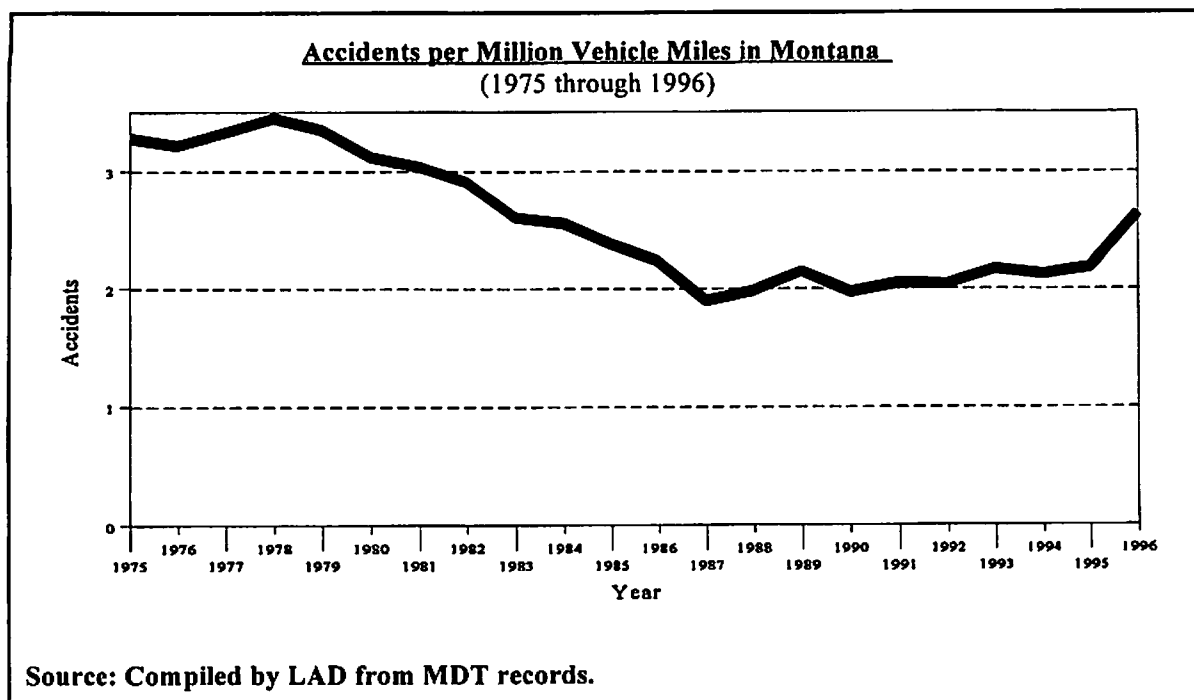
**Annual Vehicle Miles Traveled in Montana \***  
(1975 through 1996)



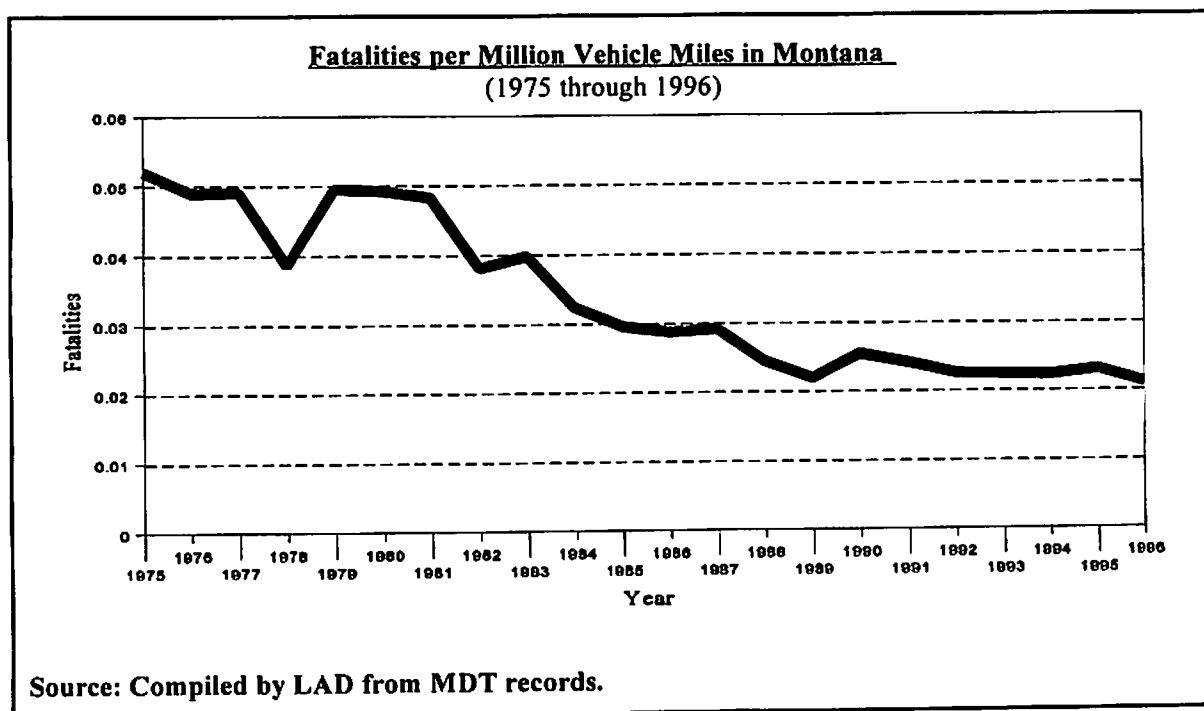
\* Includes miles traveled on all interstate and state highway systems, and local roads.

Source: Compiled by LAD from MDT records.

As shown in the following chart, the number of accidents per million vehicle miles decreased rapidly from 1978 until 1987. From 1987 to 1995 the number of accidents remained fairly constant at around two per million vehicle miles. There was an increase in 1996 to 2.64 accidents per million vehicle miles.

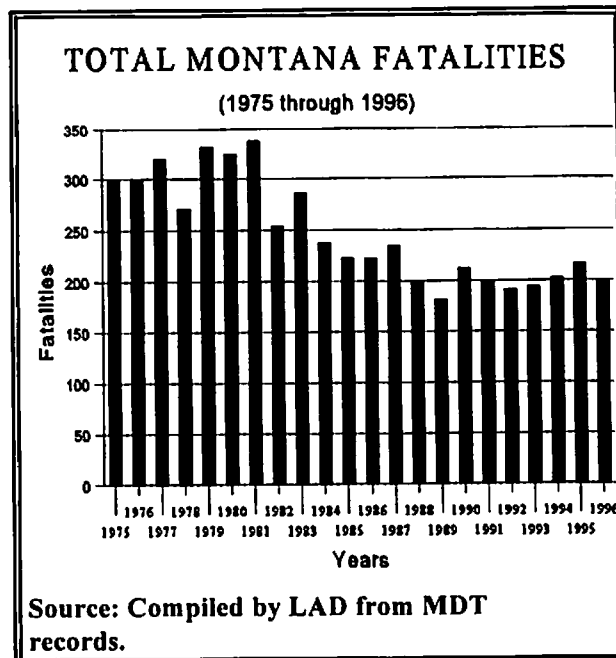
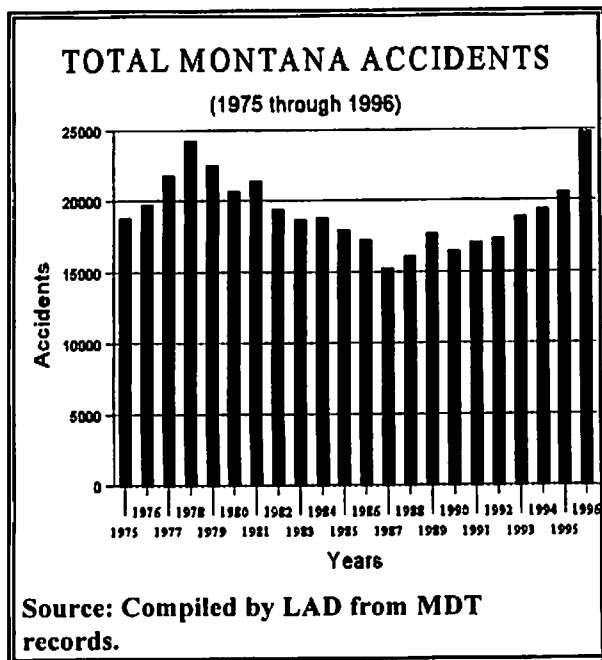


Since 1975, the trend of fatalities has been gradually decreasing. When combined with the increase in the number of vehicle miles, it causes a significant decrease in the number of fatalities per million vehicle miles traveled. This is shown in the following chart.



### ARE ACCIDENTS AND FATALITIES INCREASING?

The following charts illustrate trends in the number of accidents and fatalities from 1975 through 1996.



Overall, total accidents have increased since 1990 while the number of fatalities have remained fairly constant at around 200.

### RECENT FATALITY TRENDS

We compared the data for fatal accidents for the period of January 1 through July 31 for 1996 and 1997. In 1997 there were 111 fatal accidents resulting in 132 fatalities. For the same period in 1996 there were 97 fatal crashes and 108 fatalities. The number of fatalities has increased in the current year. In addition, there have been more multiple fatality accidents in 1997. In 1996 there were 10 accidents that involved multiple fatalities. In 1997 there were 17. The number of fatalities per multiple fatality accident is also up. This accounts for about half of the 24 fatality increase.

### HOW DO MONTANA TRAFFIC FATALITIES COMPARE TO OTHER STATES?

We analyzed how current Montana trends compare to recent trends in surrounding states. This step was completed to determine if the increased number of fatalities in Montana corresponded with fatality trends in other states. We collected data on highway traffic fatalities from the central and western states for the past three years. A time period of January 1 through September 3 was used as this was the most current data available for Montana for 1997 at the time of the analysis. Adjustments were made to data which did not correspond with this time frame. The following table shows highway fatality trends over three years and compares the data to Montana.

### HIGHWAY TRAFFIC FATALITY TRENDS

(January 1 through September 3)

| STATE        | YEAR  |                  |                  | % Increase/Decrease |          | SPEED LIMIT * |
|--------------|---|------------------|------------------|---------------------|----------|---------------|
|              | 1995  | 1996             | 1997             | 95 to 96            | 96 to 97 |               |
| Colorado     | 413   | 423              | 391              | 2%                  | -8%      | 75            |
| Idaho        | 175 <sup>1</sup>                              | 172 <sup>1</sup> | 178 <sup>2</sup> | -2%                 | 3%       | 75            |
| Kansas       | 286   | 316              | 264 <sup>3</sup> | 10%                 | -16%     | 70            |
| Montana      | 151   | 135              | 177              | -11%                | 31%      |               |
| Nebraska     | 169   | 193              | 172              | 14%                 | -11%     | 75            |
| Nevada       | 221   | 209              | 145              | -5%                 | -31%     | 75            |
| North Dakota | 49 <sup>1</sup>                               | 57 <sup>4</sup>  | 64 <sup>4</sup>  | 16%                 | 12%      | 70            |
| Oregon       | 373 <sup>5</sup>                              | 346 <sup>5</sup> | 360 <sup>5</sup> | -7%                 | 4%       | 65            |
| South Dakota | 104   | 124              | 84               | 19%                 | -32%     | 75            |
| Utah         | information not available at time of analysis |                  |                  |                     |          | 75            |
| Washington   | 403   | 478              | 424              | 19%                 | -11%     | 70            |
| Wyoming      | 122 <sup>6</sup>                              | 93               | 92               | -24%                | -1%      | 75            |

\* current speed limit (aside from Oregon, all increased after repeal of the national maximum)

<sup>1</sup> annual number reduced to 8 months (number \* 8/12)

<sup>2</sup> through August 1997

<sup>3</sup> projection (165 through May \* 8/5)

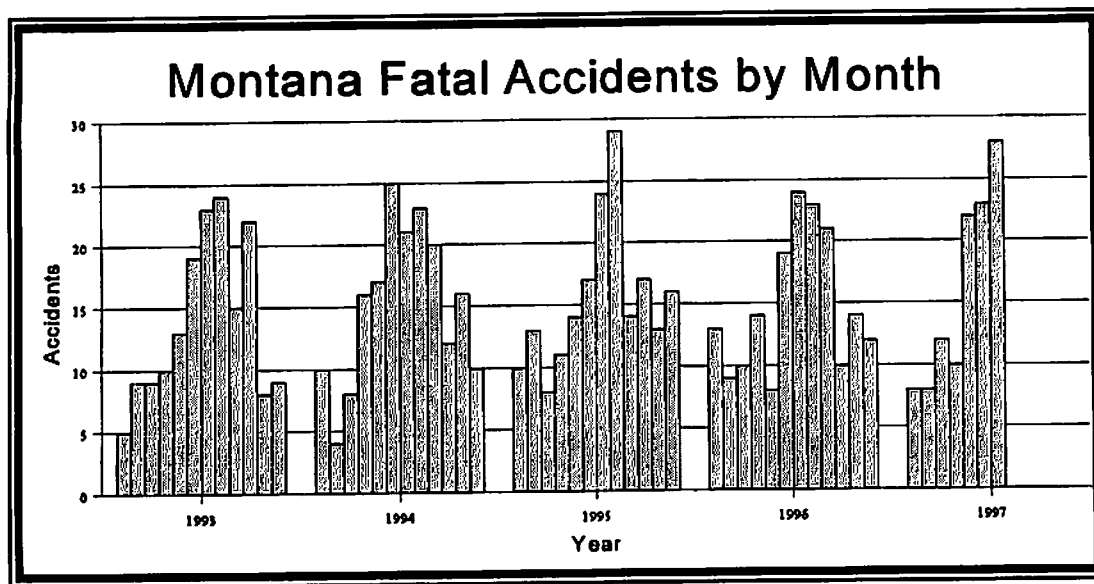
<sup>4</sup> through September 5

<sup>5</sup> through September 1

<sup>6</sup> unusually high year with no specific reason identified

**Source: Compiled by the Legislative Audit Division.**

As can be seen from the chart above, Montana has the highest percentage increase from 1996 to 1997. Three other states, Idaho, North Dakota, and Oregon, also had increases in highway fatalities from 1996 to 1997. Oregon has a posted speed limit of 65 miles per hour, the lowest of all western states, yet fatalities increased in 1997. Wyoming had a significant decrease from 1995 to 1996, but there was an unusually high number of fatalities in 1995. Other factors should also be considered when reviewing these numbers. For example, almost four months remain for 1997. Information in the Montana Highway Patrol 1996 Annual Report indicates a decreasing trend for number of fatal accidents in the latter months of the calendar year (Sept-Dec).



### WHERE DO MONTANA ACCIDENTS OCCUR?

We identified and compared the type of roadway where accidents occurred for 1995 through 1997. This was done for both fatal and non-fatal accidents. Our analyses of change between 1995 and 1996 shows that even though there was a drop in fatal accidents on state highways and slight increases in three other types of roadways, the change was not statistically significant.

| <u>MONTANA HIGHWAY ACCIDENTS BY TYPE OF ROADWAY</u> |                 |             |                 |             |  |
|---|-----------------|-------------|-----------------|-------------|--|
| (1995 through 1996)                                 |                 |             |                 |             |  |
|   | Fatal Accidents |             | Total Accidents |             |  |
|   | <u>1995</u>     | <u>1996</u> | <u>1995</u>     | <u>1996</u> |  |
| Interstate  | 33              | 37          | 2168            | 2975        |  |
| NHS Highways  | 55              | 58          | 4831            | 5863        |  |
| State Highways                                      | 61              | 46          | 6641            | 7647        |  |
| County Roads  | 28              | 30          | 2970            | 3179        |  |
| Local   | 9               | 6           | 3898            | 5216        |  |

**Source: Montana Highway Patrol Database**

We did the same comparison for the period of January 1 through July 31 for 1996 and 1997.

**MONTANA HIGHWAY ACCIDENTS BY TYPE OF ROADWAY**

**(January 1 through July 31, 1996 and 1997)**

|                | Fatal Accidents |             | Total Accidents |             |      |
|----------------|-----------------|-------------|-----------------|-------------|------|
|                | <u>1996</u>     | <u>1997</u> | <u>1996</u>     | <u>1997</u> |      |
| Interstate     | 17              | 23          | 1540            | 1494        |      |
| NHS Highways   | 33              | 36          | 3212            |             | 3035 |
| State Highways | 24              | 25          | 4072            |             | 3999 |
| County Roads   | 19              | 19          | 1722            | 1564        |      |
| Local          | 4               | 5           | 3063            | 2529        |      |

**Source: Montana Highway Patrol Database**

Our analyses of the two years shows that even though there was an increase in fatal accidents in almost all areas between the same time periods 1996 and 1997, there was no significant change in the type of roadway where fatal accidents are occurring. There was a significant change in where all accidents occur. However, this was due to the number of accidents occurring on local roads.

**WHEN DO MONTANA ACCIDENTS OCCUR?**

The next step of our review was to determine if significant differences occur between daylight and non-daylight driving since a numeric speed limit is in place for night driving. We queried the MARS database to determine when accidents occur and the severity of accidents. The following table shows accident severity for daylight and non-daylight hours for interstate, primary, and secondary highways.

### **ACCIDENT SEVERITY ON MONTANA HIGHWAYS**

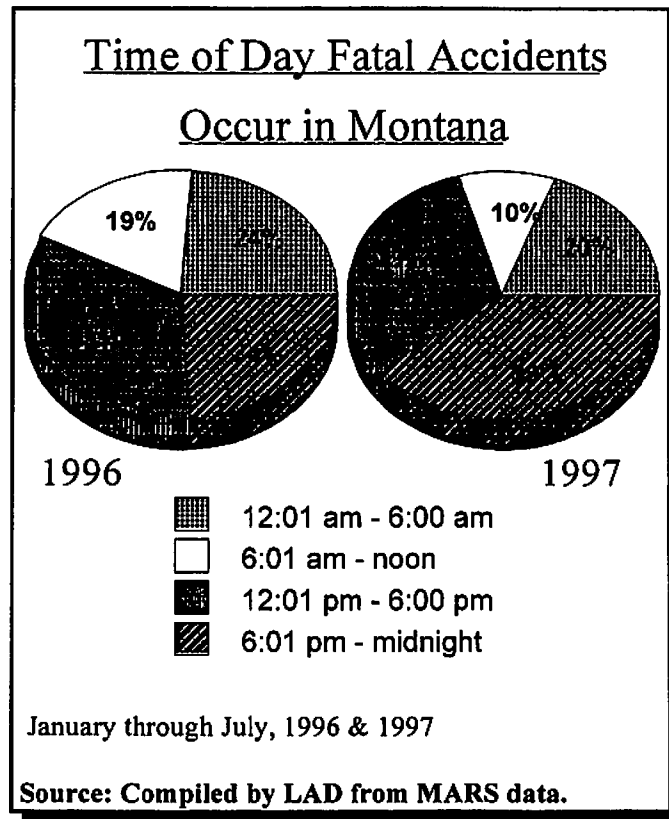
(January through July , 1996 and 1997)

|                                   | <b>Daylight Hours</b> |                    | <b>Non-Daylight Hours</b> |                    |
|-----------------------------------|-----------------------|--------------------|---------------------------|--------------------|
|                                   | -- # of Crashes --    |                    | -- # of Crashes --        |                    |
| <b><u>Interstate Highways</u></b> | <b><u>1996</u></b>    | <b><u>1997</u></b> | <b><u>1996</u></b>        | <b><u>1997</u></b> |
| Fatal                             | 12                    | 13                 | 5                         | 8                  |
| Incapacitating                    | 95                    | 86                 | 43                        | 40                 |
| Non-incapacitating                | 99                    | 153                | 58                        | 84                 |
| Non-injury                        | 773                   | 682                | 471                       | 441                |
| Possible Injury                   | 146                   | 152                | 69                        | 73                 |
| Injured (severity unknown)        | 10                    | 6                  | 6                         | 2                  |
| Unknown                           | 8                     | 5                  | 6                         | 3                  |
| <b><u>Primary Highways</u></b>    |                       |                    |                           |                    |
| Fatal                             | 22                    | 18                 | 11                        | 13                 |
| Incapacitating                    | 172                   | 162                | 80                        | 61                 |
| Non-incapacitating                | 232                   | 211                | 96                        | 129                |
| Non-injury                        | 2,067                 | 1,892              | 683                       | 676                |
| Possible Injury                   | 457                   | 426                | 134                       | 160                |
| Injured (severity unknown)        | 30                    | 40                 | 13                        | 17                 |
| Unknown                           | 74                    | 32                 | 25                        | 20                 |
| <b><u>Secondary Highways</u></b>  |                       |                    |                           |                    |
| Fatal                             | 8                     | 16                 | 16                        | 17                 |
| Incapacitating                    | 155                   | 157                | 88                        | 71                 |
| Non-incapacitating                | 284                   | 255                | 148                       | 148                |
| Non-injury                        | 2,666                 | 2,577              | 812                       | 818                |
| Possible Injury                   | 509                   | 567                | 141                       | 189                |
| Injured (severity unknown)        | 47                    | 41                 | 20                        | 18                 |
| Unknown                           | 92                    | 55                 | 44                        | 27                 |

**Source: Montana Accident Reporting System**

The following chart provides a 6-hour breakdown of the time of day fatal accidents occurred on Montana highways. The data shows a decrease in fatal accidents during the 6:01 am to noon time frame and an increase in fatal accidents during the 6:01 pm to midnight time frame.





### **IS SPEED THE ONLY FACTOR AFFECTING TRAFFIC ACCIDENTS?**

Driver behavior plays the dominant role in traffic safety. In Montana for 1997 the characteristics of the driver accounted for six of the top seven contributing circumstances to a fatal accident. According to the National Safety Council, in most motor vehicle accidents, factors are present relating to the driver, the vehicle and the road. It is the interaction of these factors which often sets up a series of events that result in an accident. The National Highway Traffic Safety Administration, in its studies and research into traffic safety, notes that very rarely is an adequate level of detail available to permit estimating the contribution of any specific factor on the occurrence of a fatal crash. It's research notes that statistical techniques that analyze accident data measure only **associations** between variables. They do not guarantee **causality**. Causality must be established through experimentation, which controls all but one or a few of the variables thought to affect the outcome variable.

If we were to relate this to the speed of a vehicle, we cannot through statistical studies or analysis determine if speed was the **cause** of an accident. We can identify driving too fast for conditions as a contributing factor, but the speed of the vehicle may not be the cause of the accident.

Many factors can add to the risk of being involved in a fatal crash. Consuming alcohol increases the risk of having a fatal accident. Alcohol affects the nervous system and inhibits decision making, proper response, and response time. Higher speed adds risk. According to a California study, if in an accident the chance of death or serious injury doubles for every 10 mph over 50 mph a vehicle travels. The faster a vehicle is going reduces the driver's ability to steer safely around objects and extends the distance necessary to stop. The condition of the vehicle also adds risk.

A research paper completed in July of 1997 by the National Center for Statistics and Analysis helps to illustrate the risk factors involved in a fatal accident. The research does not address cause. It estimates the odds of a fatality (given there is an accident). The driver factors are age, sex, posted speed in the accident location, hour of the day, day of the week, vehicle type, and type of crash. The following table summarizes the results of the study of 99,139 fatal accidents. In the table, the Odds represent relative odds. For example, in the first row - given there is an accident - the risk of there being a fatality if there is a male driver is 1.33 times higher than a female driver, or an estimated 33% greater risk. The risk of there being a fatality is 7.17 times higher if the accident occurs in an area with posted speeds higher than 55 mph when compared to an area having posted speeds of less than 40 mph.

**Estimated Odds of Driver Fatal Crash by  
Key Driver and Crash Characteristics**

| Factor                                   | Odds  |
|--|-------|
| Male/Female                              | 1.33  |
| 65 years of age or older/ Less than 65   | 2.59  |
| Posted speed 40-50 mph/ Less than 40 mph | 2.83  |
| Posted 55 mph/ Less than 40 mph          | 7.17  |
| Posted above 55 mph/ Less than 40 mph    | 8.91  |
| Weekend/ Weekday                         | 1.19  |
| Nighttime/Daytime                        | 1.91  |
| Light Truck and Van/ Passenger Car       | 1.29  |
| Side Collision/Rear Collision            | 4.70  |
| Single vehicle crash/Rear Collision      | 8.09  |
| Head On/ Rear Collision                  | 74.90 |

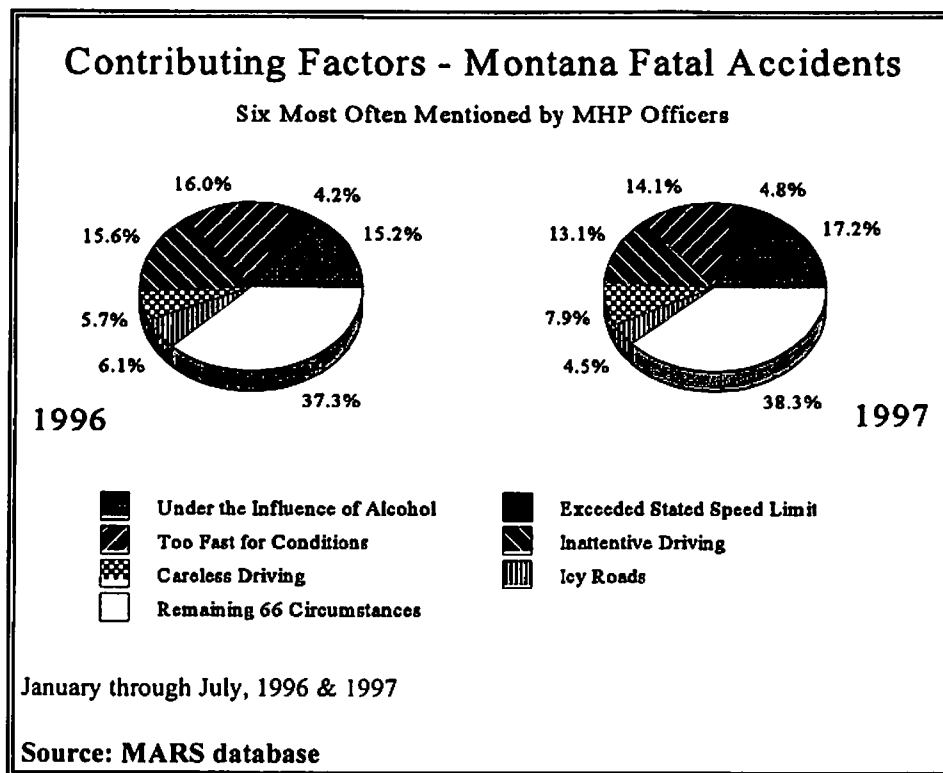
**Source: Compiled by LAD from National Center for  
Statistics and Analysis records.**

### OTHER CONTRIBUTING FACTORS IN MONTANA FATAL ACCIDENTS

In a large majority of Montana cases, several different contributing factors were present. We analyzed the number of fatal accidents for the time period of January through July for both 1996 and 1997. The six most often identified contributing factors are:

- Too Fast for Conditions
- Alcohol
- Inattentive Driving
- Icy Roads
- Careless Driving
- Exceeding Stated Speed Limit

The following chart illustrates the percent of time MHP officers mentioned the factor as a contributing circumstance in a fatal accident. Up to five contributing circumstances can be identified for each accident.



We found these factors are generally occurring at relatively the same rate in both years. The only notable changes in factors reported was an increase in alcohol and careless driving as contributing factors.

### DOES USE OF SEAT BELTS INCREASE SAFETY?

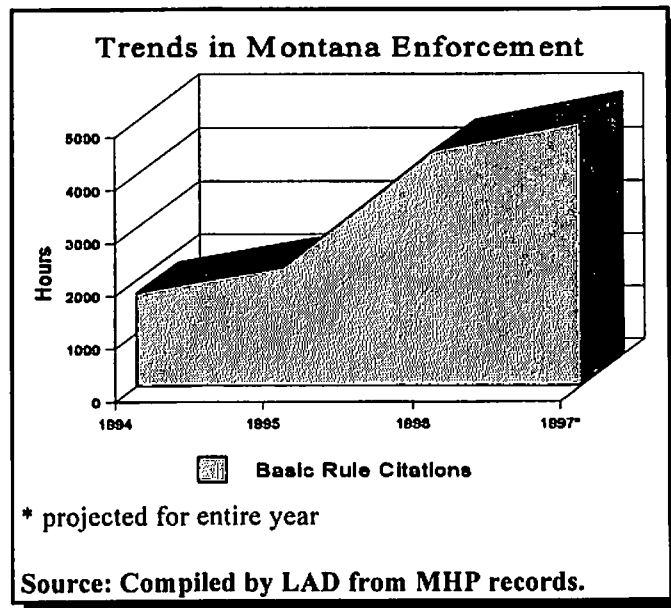
Since seat belt use was not included in this study as a contributing factor, we used the same analytical technique and constructed a similar table for seat belt use. We used Montana data for calendar year 1996. The results reflect that wearing a seat belt decreases your odds of dying if you are in an accident.

For Montana your probability of dying while wearing a seat belt are roughly 1.2 to 1000. Your probability of dying without a belt buckled are roughly 15 to 1000. Your probability of dying if your seat belt is *unfastened* is roughly 12 times higher than if your seat belt is *fastened*." Your probability of being injured if your seat belt is *unfastened* is roughly two and half times higher than if your seat belt is *fastened*."

In 1996 of the 174 Montana vehicular deaths (where seat belt data was available) those who were unbelted or improperly belted accounted for 124 (71%) of the deaths. In first six months of 1997 the 155 vehicular deaths 105 (68%) were unbelted. Not using a seat belt is definitely a contributing factor to fatalities.

### HOW HAS MONTANA ENFORCEMENT CHANGED?

MHP is responsible for patrolling the highways of Montana, enforcing traffic laws, and investigating traffic accidents. Even though MHP management staff indicated it is more difficult for officers to make a stop for speeding violations with no numeric speed limit, there has been an increase in the number of basic rule citations issued in 1997. With the elimination of the natural resource conservation fine (\$5 ticket), the primary speed enforcement tool is now the basic rule violation. This trend is illustrated in the chart to the right.



Court appearances since 1994 have also been increasing. For all of 1994, 8,140 hours were spent in court, 8,320 hours in 1995, 9,014 hours in 1996, and 5,426 recorded for the first seven months of 1997.

### HAS THE NUMBER OF MHP OFFICERS CHANGED?

MHP traffic safety enforcement is conducted primarily by highway patrol officers. The amount of enforcement is directly affected by the number of officers available. In the past year there has been some fluctuation in the number of officers available. Division funding for officer positions was reduced during the last legislative session, resulting in six less patrol officers available for enforcement duties. In addition, there are currently four vacant positions resulting from officer retirements and regular staff attrition. Currently MHP is unable to fill these positions since the reserve list for trained cadets has been depleted. A recruit academy is scheduled to begin March 16, 1998 and when completed, four vacant positions will be filled. The numbers to the right illustrate the number of available field patrol officers for conducting enforcement duties over the next three years and the number currently providing enforcement. Excluding commanding officers, there are 190 patrolmen on the road.

**MHP OFFICERS**

|                |            |
|----------------|------------|
| FY 96          | 212        |
| FY 97          | 212        |
| <b>CURRENT</b> | <b>202</b> |
| FY 98          | 206        |
| FY 99          | 206        |

Source: MHP Records

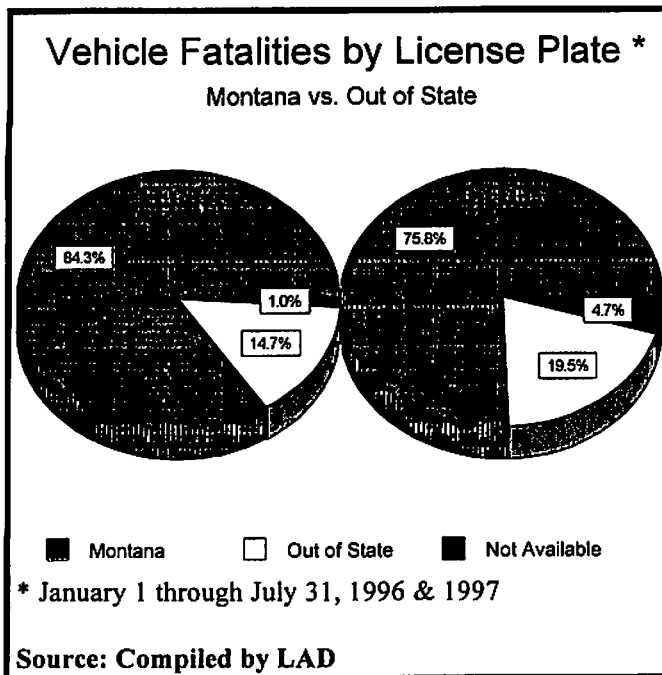
In addition to FTE levels, the amount of overtime hours logged is another indicator of potential enforcement levels. MHP officers logged 7814 overtime hours in all of 1996 and 7257 hours have been recorded in the first seven months of 1997. This amounts to approximately 37 overtime hours per officer in 1996 and 34 overtime hours per officer in 1997 through August.

**OTHER QUESTIONS ASKED**

The following sections address additional questions raised by legislators. We attempted to gather data and answer these questions to the extent possible in the limited time frame.

**Have Insurance Rates Increased in the Past Year Due to No Speed Limits?**

According to officials at the State Auditor's Office, insurance rates have not been affected yet. The actuaries are looking at this issue and will be compiling data in this area over the next year or two to determine if significant trends or changes are noted in accident rates. Insurance rates are tied to accident rates, not to speed limit restrictions.



### What Percent of Fatalities Involve Vehicles With Out of State License Plates?

We gathered this data from the MARS system. This data only distinguishes the license plates on the vehicles involved in the accident not the state of residence of the driver. We compared this data for a seven month time frame in both 1996 and 1997 to determine if any trends were noted. There were 102 vehicle fatalities in the 1996 time period and 128 were recorded for the same period in 1997. The chart to the left illustrates the percentage of Montana plates versus non-Montana plates for each year.

### What Type of Vehicles are Involved in Fatal Accidents?

Another step in the review was to determine what types of vehicles are involved in fatal crashes. The MARS database was queried to count the number of fatal accidents for each type of vehicle. The following table provides the results of this query.

**MONTANA FATALITIES BY TYPE OF VEHICLE**  
**(January through July)**

| CODE # | VEHICLE<br>BODY STYLE  | FREQUENCY |      |
|--------|------------------------|-----------|------|
|        |                        | 1996      | 1997 |
| 21     | Mid-Size Car           | 19        | 21   |
| 18     | Standard Pickup        | 16        | 19   |
| 20     | Compact Car            | 15        | 16   |
| 28     | Sport Utility          | 15        | 12   |
| 22     | Large Passenger Car    | 4         | 12   |
| 8      | Motorcycle             | 4         | 12   |
| 17     | Small Pickup           | 12        | 9    |
| 19     | Subcompact Car         | 1         | 6    |
| 25     | Large Station Wagon    | 4         | 5    |
| 23     | Small Station Wagon    | 2         | 4    |
| 27     | Mini Van               |           | 4    |
| 6      | Truck/Tractor          | 1         | 3    |
| 2      | Van                    | 5         | 3    |
| 13     | Bicycle                | 1         | 1    |
| 1      | Passenger Car          |           | 1    |
| 24     | Mid-Size Station Wagon | 2         |      |
| 26     | Moped                  |           |      |
| 98     | Working Construction   |           |      |
| 15     | Other                  |           |      |
| 16     | Fire Truck             |           |      |
| 7      | Motor home             |           |      |
| 3      | Bus                    |           |      |
| 4      | School Bus             |           |      |
| 5      | Pickup                 |           |      |
| 9      | Ambulance              |           |      |
| 14     | Snowmobile             |           |      |
| 10     | Farm Tractor/Machinery |           |      |
| 11     | Construction Equipment |           |      |
| 12     | Pickup w/ Camper       | 1         |      |
| 99     | Unknown                |           |      |
| TOTAL  |                        | 102       | 128  |

**Source: MARS database**

As the data indicates, small and standard pickups, mid-size and compact cars, and sport utility vehicles are most often involved in fatal accidents. Vans and motor homes are infrequently involved in fatal accidents, while buses and farm machinery were not involved in fatal accidents.

## **SUMMARY**

We attempted to answer questions that may help the Legislature and the public make decisions related to speed limits in Montana. A summary of the information we gathered includes:

- Since 1975 average measured speeds (over a 24 hour period) on urban Interstate highways have remained fairly constant between 55 and 60 mph.
- Average measured speeds on rural Interstate highways have been increasing and are currently 67 mph.
- For rural non-Interstate highways average measured speeds have gradually increased from about 54 mph to 58 mph.
- Annual vehicle miles traveled has been increasing steadily since 1975. The number of accidents and fatalities per million vehicle miles has been on a decreasing trend.
- For the first seven months of 1997 there have been increases in both the number of fatal accidents and fatalities compared to the same time period in 1996.
- The majority of fatal accidents and total accidents are occurring on non-Interstate highways.
- Most accidents occur during daylight hours.
- Numerous factors contribute to fatal accidents.
- Seat belts increase safety.
- Basic rule citations increased in 1997.